

**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**LISTING OF CLAIMS:**

1. (Currently Amended) An optical device comprising a diamondoid-containing material wherein the diamondoid-containing material comprises at least one diamondoid selected from the group consisting of tetramantane, pentamantane, hexamantane, heptamantane, octamantane, nonamantane, decamantane, and undecamantane, and heterodiamondoid derivatives thereof.

2. (Canceled)

3. (Currently Amended) The optical device of claim 1, wherein the diamondoid-containing material comprises at least one heterodiamondoid derivative ~~at least one higher diamondoid is a derivatized higher diamondoid.~~

4 - 57. (Canceled)

58. (Original) The optical device of claim 1, wherein the optical device is selected from the group consisting of a lens, a mirror, a pressure window, and an optical waveguide.

59. (Original) The optical device of claim 58, wherein the diamondoid-containing material is selected from the group consisting of a CVD-deposited film, a molecular crystal, and a polymerized material.

60. (Currently Amended) An optical device comprising a diamondoid-containing material ~~The optical device of claim 59,~~ wherein the diamondoid-containing material comprises at least one diamondoid selected from the group consisting of adamantane, diamantane, and triamantane, and heterodiamondoid derivatives thereof ~~thereof~~.

61 - 70. (Canceled)

72. (New) The optical device of claim 60, wherein the diamondoid-containing material comprises at least one heterodiamondoid derivative.

73. (New) The optical device of claim 60, wherein the optical device is selected from the group consisting of a lens, a mirror, a pressure window, and an optical waveguide.

74. (New) The optical device of claim 73, wherein the diamondoid-containing material is selected from the group consisting of a CVD-deposited film, a molecular crystal, and a polymerized material.